

Abstract of the Invention

Methods for enhancing penetration of compounds/drugs into hair follicles of an animal or human are provided. The method employs topical application of swellable compositions which can maintain a passage for desired drugs by either opening hair follicles and preventing them from collapsing or increasing the depth of inner lumen space of the hair follicles. The swellable composition can be polymers that are biodegradable, bioactive, encapsulated in microspheres or liposomes, and/or form microspheres. The method is useful to increase compound/drug penetration deep into a hair follicle, to increase flux of compounds/drugs through the hair follicle, to obtain release of compounds/drugs in the tissues surrounding hair follicle or under the skin surface, and to obtain systemic effect of the compounds/drugs after topical application. The method is also useful to increase therapeutic effects of compounds/drugs in the treatment of a wide variety of skin disorders and more precisely, hair disorders in human, such as alopecia or hirsutism. The method is further used to obtain temporary and/or permanent removing of unwanted hair by permitting the diffusion of compounds/drugs deeply into hair follicle.